

Amendments to the Claims:

At page 13, line 1, change "Claims" to --What is claimed is:--.

Cancel claims 1-22, without prejudice.

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1.-22. (canceled)

23. (new) A plate heat exchanger comprising  
a number of heat exchanger plates, which are substantially parallel to an extension plane  
(x, z) and arranged adjacent to each other in a plate package,  
a first end plate and a second end plate, which are substantially parallel to the extension  
plane (x, z) and arranged on a respective side of the plate package, and  
a device for keeping the plate package together in such a way that the heat exchanger  
plates abut each other, wherein the device comprises  
two separate tie sheets consisting of a first tie sheet and a second tie sheet, which are  
arranged on a respective side of the plate package substantially perpendicular to the extension  
plane (x, z),  
at least a first connection member extending between the tie sheets outside the first end  
plate, and  
at least a second connection member extending between the tie sheets outside the second  
end plate,

wherein the first connection member includes at least a first attachment of each of the tie sheets and at least a first beam, which extends in parallel with the extension plane (x, z) outside the first end plate and engages the first attachment of each tie sheet.

24. (new) A plate heat exchanger according to claim 23, wherein the first connection member includes at least two first attachments and at least two first beams which engage the two first attachments of each tie sheet.

25. (new) A plate heat exchanger according to claim 24, wherein the first attachments each include a respective hole having a side, which sides are arranged in a common plane being substantially parallel to the extension plane (x, z).

26. (new) A plate heat exchanger according to claim 24, wherein the second connection member includes at least a second attachment of each of the tie sheets and at least a second beam, which extends in parallel to the extension plane (x, z) outside the second end plate and is held by the second attachment of each tie sheet.

27. (new) A plate heat exchanger according to claim 26, wherein the second connection member includes at least two second attachments and at least two second beams which are held by the two second attachments of each tie sheet.

28. (new) A plate heat exchanger according to claim 27, wherein the second attachments include a respective hole having a side, which sides are arranged in a common plane being substantially parallel to the extension plane (x, z).

29. (new) A plate heat exchanger according to claim 26, wherein the distance between the first attachment and the second attachment is substantially equal to the thickness of the plate package when the heat exchanger plates are compressed to tight abutment against each other.

30. (new) A plate heat exchanger according to claim 25, wherein the hole has a rectangular shape with two short sides and two long sides, wherein the short sides extend substantially in parallel with the extension plane (x, z).

31. (new) A plate heat exchanger according to claim 30, wherein the beam has a height which is substantially equal to the length of the short side and a width which is significantly shorter than the long side.

32. (new) A plate heat exchanger according to claim 23, wherein the tie sheets are corrugated in such a way that ridges and valleys are formed, which extend in a direction being substantially perpendicular to the extension plane (x, z).

33. (new) A plate heat exchanger according to claim 23, wherein each heat exchanger plate includes at least two port holes, which together form two port channels of the heat plate exchanger, which channels extend through all heat exchanger plates and one of the end plates.

34. (new) A plate heat exchanger according to claim 33, wherein a gasket is arranged between each pair of adjacent heat exchanger plates for sealing an interspace between adjacent plates.

35. (new) A plate heat exchanger according to claim 34, wherein the gasket includes a curable polymer material which is applied and cured on one of the heat exchanger plates in each pair.

36. (new) A method for manufacturing a plate heat exchanger including a plurality of heat exchanger plates, a first end plate, a second end plate, two separate tie sheets having a first

tie sheet and a second tie sheet, a first connection member and a second connection member, comprising:

- arranging the heat exchanger plates substantially in parallel to an extension plane and adjacent to each other in a plate package between the first end plate and the second end plate,

- arranging the first tie sheet and the second tie sheet on a respective side of the plate package substantially perpendicular to the extension plane,

- arranging at least the first connection member between the tie sheets outside the first end plate, and

- arranging at least the second connection member between the tie sheets outside the second end plate,

- wherein the first connection member includes at least a first attachment of each of the tie sheets and at least a first beam, which is arranged in parallel to extension plane outside the first end plate in engagement with the first attachment of each tie sheet.

37. (new) A method according to claim 36, wherein the second connection member includes at least a second attachment in each of the tie sheets and at least a second beam which is provided in parallel with the extension plane outside the second end plate in engagement with the second attachment in each tie sheet.

38. (new) A method according to claim 37, wherein the attachments include a respective hole through the respective tie sheet, wherein the first beam extends through the holes of the first attachments and the second beam extends through the holes of the second attachments.

39. (new) A method according to claim 37, including arranging the second end plate on the second beam, stacking the heat exchanger plates to the plate package on the second end plate, arranging the first end plate on the plate package, arranging the first beam on the first end plate, compressing the beams, end plates and plate package,

attaching the tie sheets by moving the tie sheets towards the sides of the plate package in such a way that the first beam engages the first attachment of the two tie sheets and the second beam engages the second attachment of the two ties sheets, and  
removing the compressing.

40. (new) A method for manufacturing a plate heat exchanger including a plurality of heat exchanger plates, a first end plate, a second end plate, two separate tie sheets having a first tie sheet and a second tie sheet, at least a first beam and at least a second beam, comprising:

arranging the second end plate on the second beam, stacking the heat exchanger plates to a plate package on the second end plate,

arranging the first end plate on the plate package,

arranging the first beam on the first end plate,

compressing the beams, end plates and plate package,

attaching the tie sheets by moving the tie sheets towards the sides of the plate package in such a way that the first beam engages at least a first attachment of each of the two tie sheets and the second beam engages at least a second attachment of each of the two tie sheets, and

removing the compressing.

41. (new) A method according to claim 40, wherein the method includes previously arranging the second beam on a bed, whereupon the second end plate, the heat exchanger plates, the first end plate and the first beam are arranged on each other.

42. (new) A method according to claim 41, wherein a pressing tool is applied to the first beam for the compressing, whereupon the tie sheets are moved against the plate package in such a way that the beams will engage the respective attachment.

43. (new) A method according to claim 41, wherein at least one guide rod extends perpendicularly from the bed and the end plates, and the heat exchanger plates include at least

one recess, wherein the end plates and the heat exchanger plates are arranged on the bed in such a way that the guide rod extends through the recess for positioning of the plates.

44. (new) A method according to claim 43, wherein a curable polymer material is applied to one side of the heat exchanger plates and the polymer material is cured for forming a gasket for tight abutment against an adjacent heat exchanger plate in the plate package.